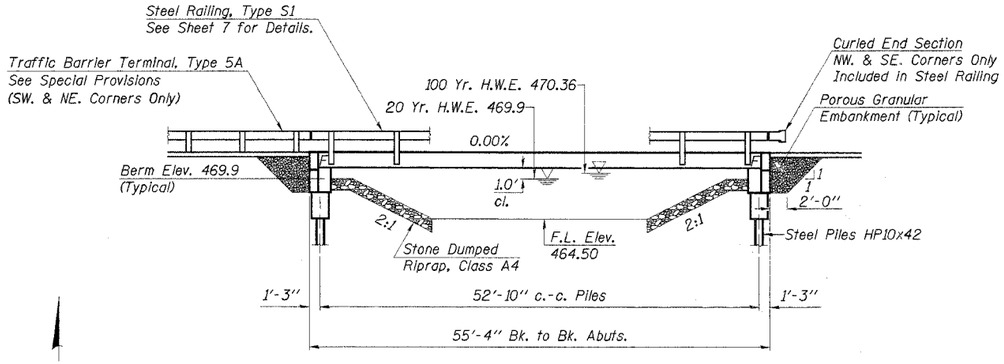
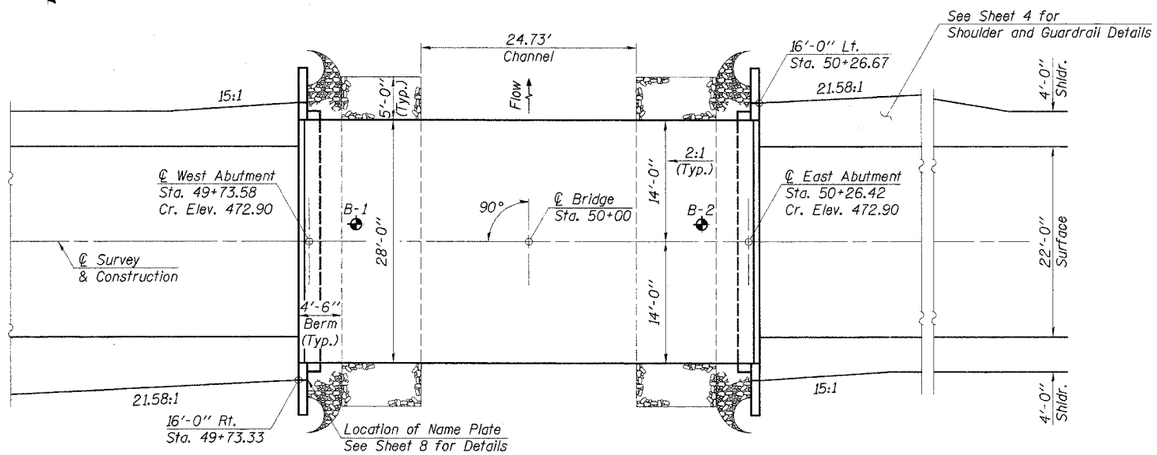
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 325	99-04128 -00-BR	CLAY	13	5
ROAD DIST.	ILLINOIS	HARTER		

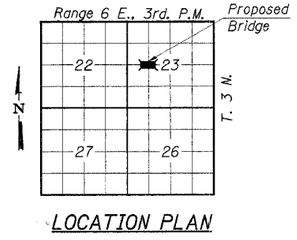
CONTRACT NO. 95523



ELEVATION



PLAN



LOCATION PLAN

GENERAL NOTES

See Proposal for Boring data.

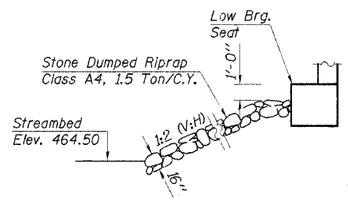
Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.

The Contractor shall drive one steel test pile in a permanent location at each abutment as directed by the Engineer, before ordering the remainder of piles.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

ELM CREEK
BUILT 200_ BY
HARTER ROAD DISTRICT
CLAY COUNTY
SEC. 99-04128-00-BR
F.A. PROJ. BROS-025(56)
STR. NO. 013-3230 LOADING HS20

LETTERING FOR NAME PLATE
See Std. 515001



STONE RIPRAP DETAIL

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,512		1,512
Concrete Structures	Cu. Yd.		20.0	20.0
Reinforcement Bars	Pound		3,060	3,060
Steel Railing, Type S1	Foot	112		112
Name Plates	Each		1	1
Steel Piles HP10x42	Foot		144	144
Test Pile Steel HP10x42	Each		2	2
Stone Dumped Riprap, Class A4	Ton		92	92
Concrete Encasement	Cu. Yd.		2.8	2.8
Porous Granular Embankment	Ton		83	83

WATERWAY INFORMATION

Drainage Area ..... 2.45 Sq. Mi.
Existing Opening (20 Yr.) ..... 79 Sq. Ft. (Bridge)
..... 282 Sq. Ft. (Road)
Required Opening (20 Yr.) ..... 190 Sq. Ft.
Proposed Opening (20 Yr.) ..... 190 Sq. Ft.
Design Discharge (20 Yr.) ..... 738 C.F.S.
H.W. Elev. (20 Yr.) 469.90
Created Head (20 Yr.) ..... 0.29 Ft.
100 Year Discharge ..... 1,091 C.F.S.
H.W. Elev. (100 Yr.) 470.36
100 Yr. Created Head ..... 0.50 Ft.

DESIGN STRESSES

f'_c = 5,000 p.s.i. (Prestressed Beams)
f'_{ci} = 4,000 p.s.i. (Prestressed Beams)
f_c = 1,400 p.s.i. (Concrete)
f_s = 270,000 p.s.i. (Prestressed Strands)
f_{si} = 201,960 p.s.i. (Prestressed Strands)
f_s = 24,000 p.s.i. (Reinf. Bars -- Field Units)
f_y = 60,000 p.s.i. (Reinf. Bars -- Field Units)
n = 9 (Concrete)
LOADING HS20-44
Design Specifications: 2002 AASHTO
25#/Sq. Ft. included in dead load for future wearing surface.

DESIGNED	F.J.S.
CHECKED	S.F.M.
DRAWN	S.A.P.
CHECKED	S.F.M.

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges".

Fred J. Stone Jr. (7-10-07)
ILLINOIS STRUCTURAL NO. 2934 (Expires 11/30/08)

LICENSED STRUCTURAL ENGINEER
FRED J. STONE, JR.
81-2934
SPRINGFIELD
STATE OF ILLINOIS

GENERAL PLAN & ELEVATION

SECTION 99-04128-00-BR
HARTER ROAD DISTRICT
CLAY COUNTY
STATION 50+00

4440 ASH GROVE
SPRINGFIELD, IL. 62711
(217) 793-8600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS

JOB NO.: 46861
FILE: 46861GPE.DGN
DATE: 07/05/07